

EXAMPLE 9

A desensitizing solution was made from the following ingredients:

| INGREDIENT | % Weight |
|---|----------|
| Poly (dimethyl diallyl-ammonium chloride) | 6% |
| Sodium Chloride | 0.6% |
| Water | 93.4% |

TESTS OF ORAL COMPOSITIONS OF EXAMPLES 1-9

The prepared solutions and oral compositions were tested using the method described by Pashley (J. Periodontology, Vol. 55, No. 9, p. 522, Sept. 1984). This test measures the flow of fluid through a sliced dentin disc. A treatment that will reduce the flow through the discs can also result in reduced dentinal hypersensitivity for people using the treatment.

A caries free tooth is sliced to obtain a 0.4 to 0.6 mm thick dentin disc. The disc is mounted on a split chamber device (J. Dent. Research 57:187, 1978). The initial flow of fluid through the disc is measured, and then the disc is treated by brushing with one of the desensitizing treatments. After brushing, the flow rate is again measured and the reduction in flow is calculated from these measurements. The following compositions were used and the reduction in flow is reported. The results for the dentifrices are based on 1 to 1 dilution with artificial or human saliva.

| Treatment | % Change in Flow |
|-----------|------------------|
| Example 1 | -43% |
| Example 2 | -47% |
| Example 3 | -39% |
| Example 4 | -48% |
| Example 5 | -63% |
| Example 6 | -57% |
| Example 7 | -80% |
| Example 8 | -69% |
| Example 9 | -59% |

EXAMPLE 10

A mouthwash was made by mixing the following ingredients:

| INGREDIENT | % WEIGHT |
|---|--------------|
| 10.3% solution of MVE/MA (90% equivalent sodium salt) | 70% |
| Alcohol 190 Proof (Grain Alcohol) | 10% |
| Pluronic F-127 | 2% |
| Flavor | 0.3% |
| Menthol | 0.02% |
| Water | q.s. to 100% |

EXAMPLE 11

The following composition was used to make a chewing gum:

| INGREDIENT | % WEIGHT |
|---------------------------|----------|
| Chewing gum NOVA Base "A" | 24.64% |
| Glycerin | 1% |

-continued

| INGREDIENT | % WEIGHT |
|-------------------|----------|
| Calcium saccharin | 0.06% |
| Sorbitol powder | 53.5% |
| Lycasin | 13% |
| Lecithin | 0.8% |
| Flavor | 1% |
| Chitosan lactate | 6% |

The chewing gum base was softened at 65° C. using a sigma blade mixer, cooled to 60° C. and 3/5 of the sorbitol powder and calcium saccharin added, followed by the glycerin. Then 1/5 of the sorbitol powder, 1/2 of the lycasin and the chitosen were added. After cooling to 50° C., the rest of the sorbitol powder, lycasin, and flavor were added. The mixture was rolled into patties and cut into strips.

EXAMPLE 12

The following composition was used to make a lozenge:

| INGREDIENT | % WEIGHT |
|-------------|----------|
| Sorbitol | 86.5% |
| Xylitol | 6% |
| Citric Acid | 0.4% |
| Flavor | 0.1% |
| Gelatin | 7% |

The sorbitol and xylitol were heated at 165° C. until the base started to thicken. The combination was cooled to 140° C. and the citric acid added. After cooling to 100° C., the gelatin was added and after cooling to 85° C., the flavor was added. Cooling was continued and a seed crystal of sorbitol was added to start crystallization. The mixture was poured into molds to form lozenges.

Various changes and modifications can be made in the process and products of this invention without departing from the scope thereof. The various embodiments described herein were for the purpose of further illustrating the invention but were not intended to limit it.

What is claimed is:

1. In a method of desensitizing teeth by applying thereto a desensitizing amount of an oral composition containing a desensitizing agent, the improvement which comprises employing as the desensitizing agent, at least one water soluble or water swellable polyelectrolyte which is polyacrylic acid salt having a degree of neutralization from about 20 to 100%.

2. The method of desensitizing teeth of claim 1 in which the polyelectrolyte cation is selected from the group consisting of ammonium, alkylammonium, calcium, sodium, potassium, strontium, zinc, aluminum, manganese, tin, iron, barium, lanthanum, titanium, bismuth and copper.

3. The method of desensitizing teeth of claim 2 in which the cation is sodium, calcium, potassium or strontium.

4. The method of desensitizing teeth in claim 1 in which said oral composition further comprises an additional desensitizing agent.

5. The method of desensitizing teeth of claim 1 in which the oral composition is in the form of a dentrifice.

6. The method of desensitizing teeth of claim 1 in which the oral composition is in the form of a mouth-